

NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE PF B- - -", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 2, NO. 7 AND NO. 8 SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO.1 AND NO. 5).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN TRANSVERSE DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.2 AND CAULK AROUND PERIMETER OF PLATE NO.2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS IN CONCRETE PARAPET ARE TO BE VERTICAL.

AFTER FABRICATION, ALL MATERIAL, EXCEPT ANCHORAGE (NO. 3 & 4) & SHIMS SHALL BE PAINTED WITH A THREE COAT ZINC-RICH EPOXY SYSTEM PER WISDOT STANDARD SPECIFICATION, SECTION 517, EPOXY SYSTEM. SHIMS SHALL BE GIVEN ONE COAT OF ZINC RICH PRIMER PAINT. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. . . .

1/4" ϕ VENT HOLES TO BE LOCATED AT LOW END OF RAILS.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 2 (TL-2).

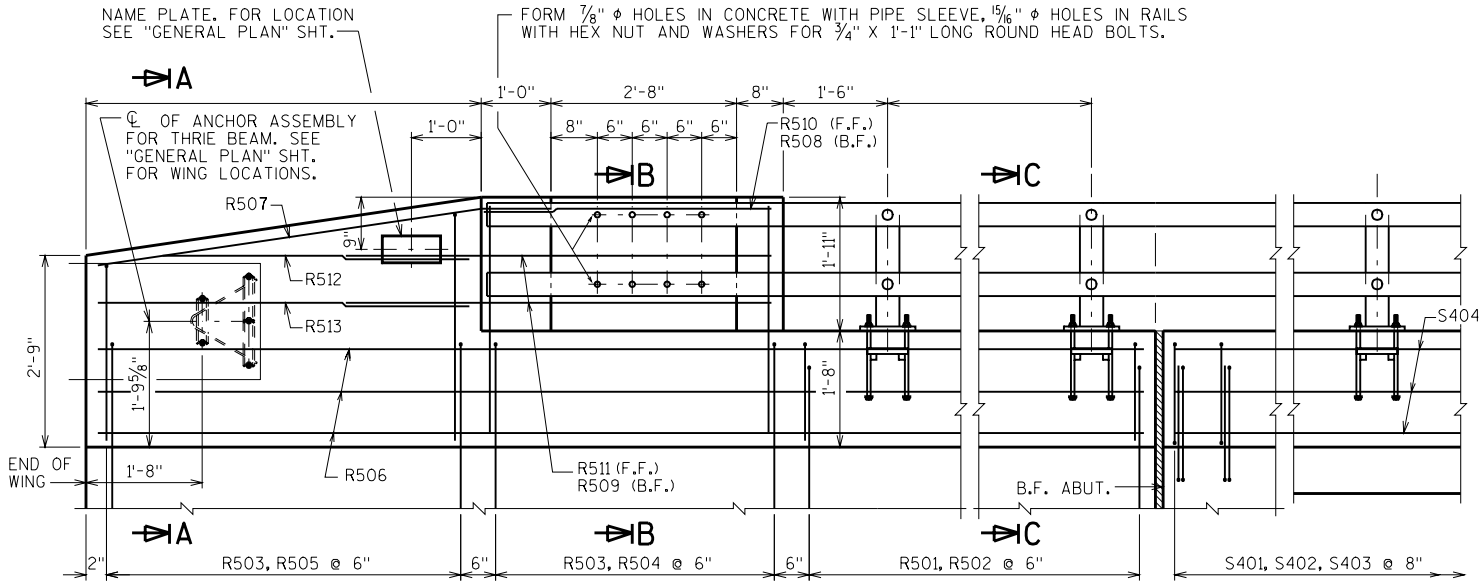
SEE SHT. FOR RAILING DETAILS.

LEGEND

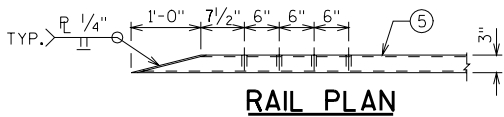
- ① TS 4 x 4 x 0.25 x 1'-9 1/4" STRUCTURAL TUBING WITH 1 5/8" ϕ HOLES FOR BOLT NO. 6. PLACE POSTS VERTICAL IN TRANSVERSE DIRECTION. WELD TO NO. 2. PLACE POSTS NORMAL TO GRADE LINE
- ② PLATE 3/4" x 8 1/2" x 9 1/2" WITH 7/8" x 1 1/8" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ 5/8" DIA. X 1'-1" LONG ASTM A325 HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. EMBED A MIN. OF 10". CHAMFER TOP OF BOLTS BEFORE THREADING.
- ④ BAR 3/4" SQ. X 7" LONG. WELD TO ANCHOR BOLTS NO. 3 (GALVANIZED).
- ⑤ TS 4 x 3 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH BOLTS NO. 6. PROVIDE 1 3/8" DIA. HOLE FOR NO. 6.
- ⑥ 3/4" DIA. X 9" LONG ROUND HEAD BOLTS, ASTM A307, WITH HEX. NUT AND WASHERS AND LOCK WASHER. (1 REQ'D. AT EACH RAIL TO POST LOCATION.)
- ⑦ RECTANGULAR SLEEVE FABRICATED FROM 1/4" PLATES. 1'-6" LONG.
- ⑧ RECTANGULAR SLEEVE FABRICATED FROM 1/4" PLATES. PROVIDE "SLIDING FIT" WITH MIN. OUT TO OUT DIMENSION OF 3 9/16" X 2 13/16".
- ⑨ 3/4" DIA. X 1'-1" LONG ROUND HEAD BOLTS, ASTM A307, WITH HEX NUT AND WASHERS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE			
		DRAWN BY	PLANS CK'D.
RAILING TUBULAR TYPE PF		SHEET	

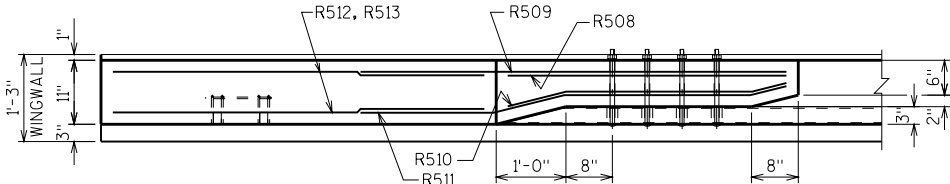
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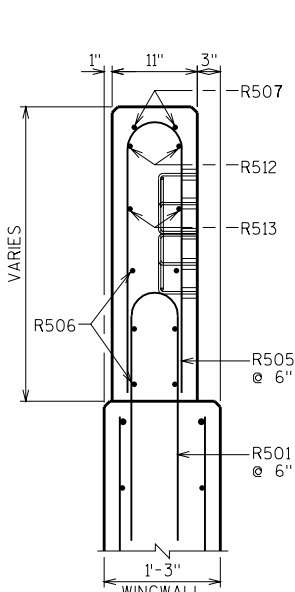
INSIDE ELEVATION
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-4". DEFINE CONSTR. JT. WITH A 3/4" "V"-GROOVE.



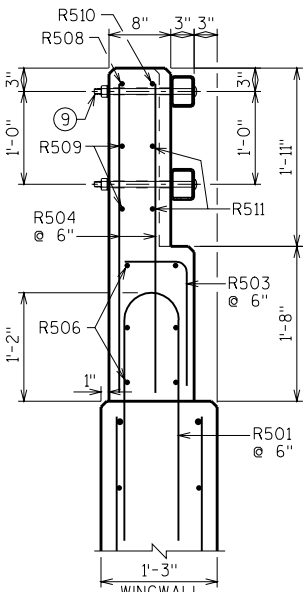
RAIL PLAN



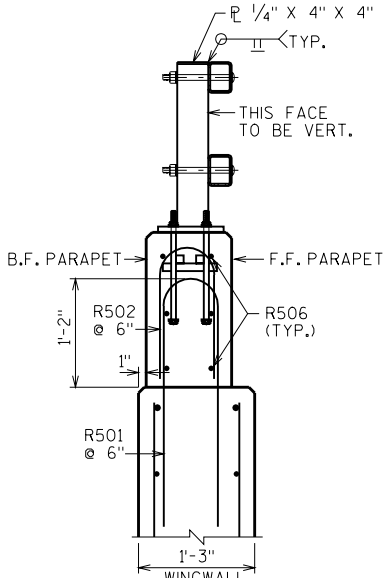
PARAPET PLAN



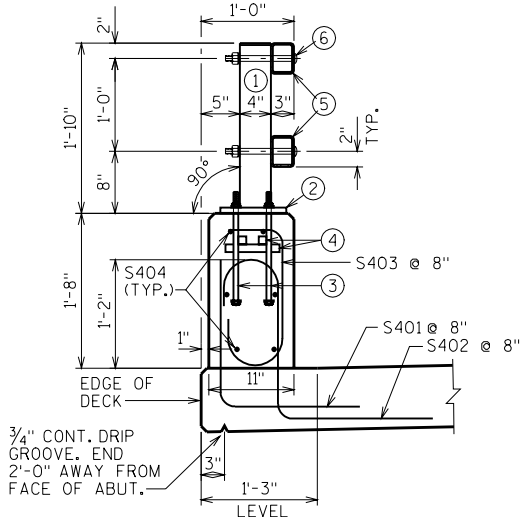
SECTION A-A



SECTION B-B



SECTION C-C



SECTION THRU DECK

ADJUST LOCATIONS OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING AND BEAM GUARD (WHEN REQ'D.).